

IN THE CLAIMS:

1. (original): An interface (10) for supplying power to a load (14) from an electrical power supply network (12) comprising:

- a rectification stage (18) comprising an autotransformer (40) equipped with at least one primary winding (44A, 44B, 44C) designed to be connected to the power supply network (12); and
- a power supply signal conditioning stage (20) having an output (28) supplying power to the load (14), which power supply signal conditioning stage (20) includes a power module (22) for conditioning the power supply signal connected at the output of the rectification stage (18) and a control module (24) designed to control the power module (22),

wherein the autotransformer (40) includes at least one additional winding (62A, 62B, 62C; 64A, 64B, 64C) connected to the control module (24) to supply it with electrical power, the or each additional winding (62A, 62B, 62C; 64A, 64B, 64C) being magnetically coupled to at least one primary winding (44A, 44B, 44C) of the autotransformer (40).

2. (original): The power supply interface as claimed in claim 1, wherein the autotransformer (40) is a polyphase transformer, and wherein it includes at least one additional winding (62A, 62B, 62C; 64A, 64B, 64C) provided for each phase of the transformer.

3. (original): The power supply interface as claimed in claim 2, wherein the autotransformer is a transformer with six-phase output (40).

PRELIMINARY AMENDMENT
U.S. APPLN. NO. 10/623,865

4. (currently amended): The power supply interface as claimed in ~~any one of the preceding claims~~claim 1, wherein the control module (24) includes a signal shaping module (32) connected to the or to each additional winding (62A, 62B, 62C; 64A, 64B, 64C).

5. (currently amended): The power supply interface as claimed in ~~any one of the preceding claims~~claim 1, wherein the autotransformer (40) includes at least two additional windings (62A, 62B, 62C; 64A, 64B, 64C) having different numbers of turns designed to supply power to the control module (24) at two distinct voltages.

6. (currently amended): A transportation engine including an electrical power supply network (12) and at least one load (14) connected to the electrical power supply network (12) via a power supply interface as claimed in ~~any one of the preceding claims~~claim 1.